

**FURNACE ASSEMBLY FOR HEATING AN  
OPTICAL WAVEGUIDE PREFORM**

**Abstract**

A furnace assembly for heating an optical waveguide preform includes a  
5 furnace. The furnace includes a muffle and a heating device. The muffle defines a  
furnace passage. The furnace passage has a length extending from a first end to a  
second end. The heating device is operative to heat the furnace passage. A  
process gas supply provides a process gas to the furnace passage. A handle is  
disposed in the furnace passage and is adapted to hold the waveguide preform. A  
10 flow shield is positioned between the first and second ends and extends across the  
furnace passage between the handle and the muffle. The flow shield is arranged  
and configured to restrict flow of the process gas from the first end to the second  
end of the furnace passage.

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